



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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January 6, 2004

Mr. Matthew C. Greller
Executive Director
Indiana Association of Cities and Towns
P.O. Box 1903
Indianapolis, IN 46206

Dear Mr. Greller:

Thank you for your December 3, 2003 letter regarding a request that IDEM consider and address the issue and specific options for a wet weather standard in the proposed amendments to rules concerning *E. coli* criteria and implementation procedures prior to the second notice of the comment period. Since I was presented this letter at the *E. coli* meeting on December 4th, as I indicated at this meeting, I felt it was appropriate to take some time and discuss this issue within IDEM.

IDEM is certainly sensitive to the substantial concerns that CSO municipalities have in any ultimately liability associated with violations of existing water quality standards from “unavoidable” CSO discharges. Our offer to meet on a regular basis with representatives from the municipalities and their representatives to work through key issues related to implementation of the CSO policies reflect our great interest in finding ways to both make progress on water quality issues related to CSOs and address legitimate concerns from the municipal perspective. So, we are amenable to your request to modify the charge of the current Triennial Review *E. coli* workgroup to continue discussions related to the wet weather issues. In doing so, we would like to lay out some background and then frame a few options to help jumpstart discussions.

Background of *E. coli* workgroup

By way of background, the current *E. coli* workgroup was one of four workgroups that were established to make recommendations to IDEM on four areas of the Triennial review. These areas and the subsequent workgroups came about as a result of discussions with the Triennial Stakeholder’s workgroup which is comprised of a wide range of stakeholders. Triennial stakeholders and *E. coli* workgroup members discussed what issues would be addressed by the workgroup. The issues were compiled and put in a workplan, which can be found at <http://www.in.gov/idem/water/planbr/wqs/review/ecoli.html>. This workgroup was created to examine a May 2002 U.S. EPA draft implementation guidance document for the 1986 ambient water quality criteria for bacteria. In 1986, the U.S. EPA published ambient water quality criteria for bacteria in order to protect against excessive risk to humans of gastrointestinal illnesses in waters used for full body contact recreational activities. The ambient criteria established limits on

the levels of indicator bacteria, namely *Escherichia coli* (*E. coli*) and enterococci. These limits were developed at levels designed to protect bathers in fresh and marine recreational waters. Based on the 1986 ambient water quality criteria for bacteria, EPA recommended that states adopt both a monthly average and single sample daily maximum limit for fresh recreational waters. In 1990 Indiana adopted *E. coli* bacteriological criteria for all waters.

In May 2002 EPA released a draft implementation guidance document for the 1986 ambient water quality criteria for bacteria. In this guidance, EPA provides increased flexibility for states in implementing the 1986 criteria.

***E. coli* workgroup status**

IDEM has engaged the workgroup in discussing all of the issues listed in the workplan with the exception of the issue of year round disinfection. This last issue was tabled until Dr. Ron Turco, workgroup member, who has done extensive research in this area, is available to make a presentation on this issue to the workgroup. Regarding the issue of full body contact recreation designation, IDEM and the *E. coli* workgroup have used the 2002 U.S. EPA guidance and have also gathered additional background information. Based upon the guidance and information gathered, IDEM and the *E. coli* workgroup have discussed a framework for primary and secondary contact recreation designation using a risk based approach. As a result, IDEM is ready to move forward with preparing rule language for second notice on this issue.

Wet Weather Issue

As indicated by your December 3rd letter, you would like to discuss the wet weather issue further before IDEM moves forward with a second notice on the *E. coli* rulemaking. Per your request, we propose to incorporate the wet weather issues into the *E. coli* rulemaking and discuss these issues with IACT and other interested parties. However, before we move forward with this discussion, we would like to outline the current federal and state regulatory framework that we must work within, the current work of Ohio River Valley Water Sanitation Commission (ORSANCO) on this issue, and some proposed options as a starting point for discussion.

Federal and State Regulatory Framework

While a more detailed summary of applicable Federal and State laws is attached (Attachment 1) to this letter, Federal law precludes the establishment of a designated use for wet weather. The regulation specifically provides in 40 CFR 131.10(a) that “...In no case shall a State adopt waste transport or waste assimilation as a designated use for any waters of the United States.”

Regarding the temporary suspension of designated uses, Section 20 of SEA 431 outlines the conditions for a temporary suspension and duration of application. A Use Attainability Analysis (UAA) is required to be submitted to and approved by IDEM, and a rulemaking must be conducted to establish the changed designated use and associated water quality criteria in order for a temporary suspension to be granted. A temporary suspension can not be granted for an existing use. A temporary suspension must ‘suspend’ to a secondary contact designation and associated water quality criteria. A rulemaking is required to establish these secondary contact designations and associated water quality criteria. After review by IDEM staff, the UAA is then presented to the Water Pollution Control Board for their review. Changes based upon approval of a UAA are subject to EPA’s approval.

ORSANCO Work on Wet Weather

On September 17, 2003, the ORSANCO convened a meeting with all ORSANCO compact states, the three EPA regions and EPA headquarters to discuss the approach that ORSANCO should take in addressing wet weather issues on the Ohio River. At least one representative from each of the states, the three EPA regions, and EPA Head Quarters attended. Although the discussion was excellent and many topics and alternatives were discussed, it was clear that no state or even EPA had “the answer” to wet weather issues. The result of the meeting was the development of “Guiding Principals” and “Next Steps” by ORSANCO (see Attachment 2). Another meeting of the group will occur to continue discussion. While ORSANCO is now engaged in gathering information to develop ways to address wet weather issues, it does not have a proposal available for use.

IDEM Discussion Options

As indicated above, it is our understanding that no other state or interstate entity has a consistent and well accepted approach for dealing with the unique issues posed by wet weather. Taking into consideration the current Federal and State regulatory framework, it appears that focusing on developing ways to implement existing criteria under wet weather scenarios rather than development of wet weather criteria may be the most productive approach for discussion. The following possible approaches clearly need more discussion with all parties, including EPA, the public and within IDEM. However, we believe they are good starting points for our workgroup discussions:

1. Allow a percentage of exceedances of *E. coli* criteria before considering a violation to have occurred. For instance, single sample criterion could be exceeded 10% of the time and the permittee would not be considered in violation. This may allow for some individual samples to exceed the water quality criteria due to wet weather. The specifics associated with obtaining appropriate representative samples and the procedures for making determinations would have to be discussed with all parties and U.S. EPA.
2. Allow a percentage of exceedances of *E. coli* criteria based on implementation of a LTCP and approval of a UAA. The UAA would demonstrate, for example, that widespread social and economic hardship would result beyond some level of treatment of CSO discharges (% capture or number of overflows), determined on a case by case basis. Some questions remain about how best to implement such an approach and its legality.
3. Establish flow/velocity event levels that would essentially prevent recreational activities from occurring in a specific water body due to other safety concerns. This cannot be applied when there are existing uses (though it may be possible to make a demonstration that primary contact uses are not “existing uses” at /or above a specified flow or velocity for a particular event).

Summary

In summary, we agree to delay the rulemaking to update the *E. coli* criteria in our water quality standards in order to discuss further options for addressing wet weather situations for CSO communities. Our discussions should be consistent with the existing federal regulatory framework. The process that we see at this point is to present this information on framework and options at the next *E. coli* workgroup which is scheduled for January 22nd, 2004 in the Lafayette area for further discussion and recommendations on additional options. We have also invited U.S.

EPA to join us at this meeting to present the Federal regulatory perspective as well as participate in future meetings. Once the *E. coli* workgroup comes to closure on options to explore and a workplan, then, we would like to invite additional representatives from the CSO communities as well as other interested parties to join this workgroup for exploration of these options. In addition, representatives from the CSO communities as well as other interested parties are welcome to participate in the initial discussion to frame out the options with the *E. coli* workgroup.

Thank you Matt and we look forward to a productive discussion on this very important issue.

Sincerely,

Mary Ellen Gray
Deputy Assistant Commissioner
Office of Water Quality

Legal Issues relating to CSO Long Term Control Plans and Wet Weather Issues

Applicable State Law for Temporary Suspension of Designated Uses IC 13-18-3-2.5 states that if a municipality can successfully demonstrate that the use is not an existing use (if it is, then it cannot be suspended and must be protected) and meet the other requirements of a suspension, it may be approved after rulemaking and permit changes. The other requirements include: having an approved LTCP; having the approved LTCP incorporated into the NPDES permit; at a *minimum*, the LTCP provides for capture of first flush and implementation of cost-effective controls; the City is implementing (or has completed implementation) of the LTCP in accordance with the schedule approved under the LTCP; the City is in compliance with the requirements for the operation and maintenance of the plant and collection system, including the approved CSOOP; and complying w/the remaining provisions of federal law (as discussed below).

Applicable Federal Law for Designated Uses CWA section 303(c)(2); 40 CFR 131.10; 40 CFR 131.6 and 131.10; 131.11(a).

40 CFR 131.10(a) provides: “In no case shall a State adopt waste transport or waste assimilation as a designated use for any waters of the United States.”

40 CFR 131.10 (g) allows states to remove a designated use which is not an existing use if the State can demonstrate that attaining the designated use is not feasible because:

Other criteria that must be met before a designated use can be removed include: (1) the use cannot be an existing use; (2) the state can demonstrate that attaining the use is not feasible because of one of the factors listed in 40 CFR 131.10(g); (3) the uses cannot be attained by implementing effluent limits required under CWA sections 301(b) and 306 and by implementing cost-effective and reasonable best management practices for nonpoint source control; (4) a Use Attainability Analysis on a case-by-case basis is conducted and approved by EPA (if the UAA is conducted by an entity other than the state, the state would also need to approve); (5) the state would hold a public hearing; (6) changes to the standards would have to be approved by EPA. In addition, according to 40 CFR 131.20 and 40 CFR 131.21, approval from EPA on the proposed revised standards is needed before they could become effective.

40 CFR 131.11(a) requires states to adopt water quality criteria that protect the designated use (where an existing use is not a designated use, the state must revise its standards to reflect the uses actually being attained). The criteria must be based on sound scientific rationale and must contain sufficient parameters to protect the designated use.

Section 303(c)(2) of the CWA and several provisions of the federal regulations, including 40 CFR 131.6, require use designations and standards to protect the public health or welfare, enhance the quality of the water and serve the purposes of the Act (CWA section 101(a)(2)).

Applicable Federal and State Law for Use Attainability Analysis Regarding the Use Attainability Analysis, the Applicable State Law is: IC 13-18-3-2.5(a) and the Applicable Federal Law is: 40 CFR 131.3(g) and 40 CFR 131.10. The federal CSO guidance issued in 2000 contemplates a very technical process.. It contemplates in- stream data as well as end-of-pipe

data, all accomplished in conjunction with a well-designed LTCP. It also contemplates that this process be very public.

Applicable Federal and State Law for Water Quality Standards: CWA Sections 303(c)(2)(A) and 402(q); 40 CFR §§122.41 and 122.44; 40 CFR 131.6, 131.10 and 131.11; the 1994 federal CSO policy. A CSO is like any other point source. It cannot “cause or contribute to a violation of water quality standards”. Water Quality Standards include uses that States designate for specific water, criteria to protect designated uses and an antidegradation policy to protect existing uses.

For outside the Great Lakes System: 327 IAC 2; 327 IAC 2-1-3 (regarding use designations); 327 IAC 2-1-2 (regarding antidegradation provisions); 327 IAC 2-1-6 (regarding narrative and numeric standards, although at this stage we are generally only requiring that the narratives be met). For inside the Great Lakes System: 327 IAC 2; 327 IAC 2-1.5-2 (antidegradation policy); 327 IAC 2-1.5-4 (use designations); 327 IAC 2-1.5-8 (narrative and numeric standards); 327 IAC 5-2-11.3 and –11.7 (antidegradation implementation procedures). Also relevant are: 327 IAC 5-2-10 through 5-2-11.6 (establishment of water quality-based effluent limits in NPDES permits) and 327 IAC 2-1 and 2-1.5 (establishment of water quality standards).

ORSANCO Work on Wet Weather Issues

On September 17, 2003, ORSANCO convened a meeting with all ORSANCO compact states, the three EPA regions and EPA headquarters to discuss the approach that ORSANCO should take in addressing wet weather issues on the Ohio River. At least one representative from each of the states, the three EPA regions, and EPA HQ attended. Although the discussion was excellent and many topics and alternatives were discussed, it was clear that no state or even EPA had “the answer”. The result of the meeting was the development of the following “Guiding Principals” and “Next Steps” by ORSANCO. Another meeting of the group will occur to continue discussion.

Guiding Principals

- 1 A reasonable target must be established for control of wet weather pollution sources; this target must be as fixed as possible and not subject to periodic change.
- 2 Pathogen criteria established to protect water supply use should be met at all times.
- 3 Pathogen criteria established to protect recreation should be met at all times when the river is otherwise safe for contact recreational use.
- 4 All sources of pathogens should be required to provide a reasonable level of control. For Combined Sewer Overflows, this includes the Nine Minimum Controls and a Long Term Control Plan.
- 5 The public needs to receive clear information regarding the risks of contact recreation in the Ohio River.
- 6 Decisions that involve the balancing of risk to the public in recreational use of the river versus cost to the public in order to control pathogens need to be made with considerable public involvement.
- 7 The approach taken to develop wet weather standards for the Ohio River should be appropriate for use on other waterbodies in the Ohio River watershed and across the US that are affected by urban wet weather sources of pollution.

Steps Towards Development

- 1 It is the objective of this process to present proposed revisions to the ORSANCO Pollution Control Standards to the Commission in October 2004.
- 2 Identify existing safety- related constraints on Ohio River contact recreation.
- 3 Assess Ohio River pathogen levels in least-impacted areas.
- 4 Identify states that are addressing wet weather issues and establish a dialogue with them to discuss alternative approaches.
- 5 Engage the public in discussion of the risks associated with contact recreation on the Ohio River.
- 6 Convene the Wet Weather Work Group to discuss the results of the above and to identify possible revisions to the ORSANCO Standards.

While ORSANCO is now engaged in gathering information to guide them in the development of ways to deal with wet weather issues, they do not currently have any proposal to put forward.